

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (Previously Presented), (cancelled), (withdrawn), (Previously Presented), (previously presented), or (not entered).

Please AMEND claim 111, in accordance with the following:

1. (Previously Presented) A display apparatus enclosure capable of being connected to an external storage device disposed external to the display apparatus, the display apparatus comprising:

a receiving processor that receives a television broadcasting signal and at least one of a digital video signal and an audio signal from the external storage device;

a controller that, if a user commands storage of the received the television broadcasting signal, stores the received television broadcasting signal in the external storage device;

a display unit to display the received digital video signal; and

a speaker to output the received audio signal;

wherein the controller is connected to the external storage device through the port and the controller downloads a file system, which stored in the external storage device, to the display apparatus and forms the virtual file system to control the storage device based on the downloaded file system.

2. (Previously Presented) The display apparatus of claim 1, wherein the controller, according to a request from the user and when the received digital video signal and audio signal are stored in the external storage device, determines whether the received digital video signal and audio signal is to be output through the port.

3-5. (Cancelled).

6. (Previously Presented) The display apparatus of claim 1, wherein if an input of the user requests control of the external storage device, the controller outputs management information through the port, and uses the management information to manage the storage or reproduction of the received digital video signal and audio signal with respect to the external storage device.

7. (Cancelled)

8. (Previously Presented) The display apparatus of claim 6, wherein the management information for the video signal and audio signal stored in the external storage device is displayed in an on-screen display format on the display unit.

9. (Previously Presented) The display apparatus of claim 6, wherein the management information for the video signal and audio signal stored in the external storage device is output as an audio signal through the speaker.

10. (Previously Presented) The display apparatus of claim 6, wherein the management information comprises time information corresponding to a storage capacity of the external storage device, and a list including the stored digital video signal and audio signal and additional video signals and audio signals stored in the external storage device.

11. (Previously Presented) The display apparatus of claim 6, wherein the reproduced video signal and the audio signal are a video signal and an audio signal selected from a plurality of reproducible video signals and audio signals stored in the external storage device and which is selected by a user with reference to the management information.

12. (Cancelled)

13. (Previously Presented) A display apparatus capable of being connected to an external storage device, the apparatus comprising:

- a display unit to display the received digital video signal;
- a speaker to output the received audio signal; a receiving processor to receive at least one of a digital video signal and an audio signal;
- a controller that forms a virtual file system to control the external storage device based on a file system downloaded from the external storage device, wherein,
 - if a user requests storage of the received digital video signal and audio signal, the controller stores the received digital video signal and audio signal in the external storage device in real time with reference to information generated on the basis of the formed virtual file system, and

if the user requests reproduction of the digital video signal and audio signal stored in the external storage device, the controller reproduces the stored video signal and an audio signal from the external storage device with reference to the information generated on the basis of the virtual file system; and

an output unit, to output the reproduced video signal and audio signal,
wherein the controller is connected to the external storage device through a port.

14. (Previously Presented) The display apparatus of claim 13, wherein the controller downloads the file system stored in the external storage device and uses the downloaded file system to form the virtual file system.

15. (Previously Presented) The display apparatus of claim 13, wherein the controller controls the storage or the reproduction to output the digital video signal and audio signal received through the receiving processor to the output unit in real time.

16. (Previously Presented) The display apparatus of claim 13, wherein the information generated on the basis of the virtual file system comprises management information to control the external storage device.

17. (Previously Presented) The display apparatus of claim 16, wherein the management information comprises a storage capacity of the external storage device.

18. (Previously Presented) The display apparatus of claim 17, wherein the controller generates the management information so that the management information is output in an on-screen display format through the output unit.

19. (Previously Presented) The display apparatus of claim 13, wherein, when the video signal and/or the audio signal are reproduced from the external storage device, the controller displays the video signal reproduced from the external storage device and the received video signal together using the output unit in a Picture-In-Picture format or in a Picture-By-Picture format.

20. (Previously Presented) A display apparatus connected with an external storage device, the apparatus comprising:

a receiving processor that receives a digital video signal and an audio signal;
a compression and decompression unit that
if a user requests storing of the received digital video signal and audio signal, is set to a compression mode, and compresses the digital video signal and the audio signal received from the receiving processor, and
an output unit to output the reproduced digital video signal and audio signal; and
a controller that
if the user requests the storage, controls the compression and decompression unit in the compression mode and stores the digital video signal and audio signal compressed by the compression and decompression unit in the external storage device in real time, and
if the user requests the reproduction, outputs the digital video signal and audio signal from the external storage device to the output unit through the compression and decompression unit,
wherein the output unit comprises a display unit to display the reproduced digital video signal and a speaker to output the reproduced audio signal and the controller downloads the file system for controlling the external storage device, from the external storage device, to the display apparatus and forms the virtual file system using the downloaded file system,
wherein the virtual file system controls the external storage device.

21. (Previously Presented) The display apparatus of claim 20, wherein the controller controls the storage or reproduction of the digital video and audio signals with respect to the external storage device using the virtual file system.

22. (Canceled).

23. (Previously Presented) The display apparatus of claim 21, wherein the controller forms the virtual file system if an input of the user requests control of the external storage device.

24. (Previously Presented) The display apparatus of claim 20, wherein the controller generates management information for managing the stored video signal and the audio signal in the external storage device using the virtual file system, and outputs the management information to the output unit.

25. (Original) The display apparatus of claim 24, wherein the controller generates the management information so that the management information is displayed in an on-screen display format on the output unit.

26. (Previously Presented) The display apparatus of claim 24, wherein the management information comprises time information corresponding to a storage capacity of the external storage device, and a list including the stored digital video signal and audio signal and additional video and audio signals stored in the external storage device.

27. (Previously Presented) The display apparatus of claim 20, wherein, when the received video signal and audio signal are output through the output unit in real time, the controller controls the storage or reproduction of the received video signal and the audio signal with respect to the external storage device.

28. (Previously Presented) The display apparatus of claim 27, wherein, when the video signal and the audio signal are reproduced from the external storage device, the controller displays the video signal restored from the compression and decompression unit and the received video signal together on the output unit in a Picture-In-Picture format or in a Picture-By-Picture format.

29. (Cancelled)

30. (Previously Presented) A method of operating a display apparatus configured to be capable of being connected to an external storage device disposed external to the display apparatus, the method comprising:

forming a virtual file system for controlling the external storage device based on a file system from the external storage device;

generating management information for the external storage device using the virtual file system;

providing the generated management information to the user before the user requests the storage or the reproduction of the received digital video signal and audio signal;

receiving at least one of a digital video signal and an audio signal in the display apparatus; and

transmitting the received digital video signal and audio signal to the external storage device disposed external to the display apparatus,

wherein the display apparatus is connected to the external storage device through a port, and includes a display unit to display the received digital video signal, and a speaker to output the received audio signal.

31. (Cancelled)

32. (Previously Presented) The method of claim 30, wherein the forming the virtual file system is performed if an input of the user requests control of the external storage device by the display apparatus.

33-34. (Cancelled)

35. (Previously Presented) The method of claim 30, wherein the receiving and transmitting comprises receiving a user selection indicating that the user requests reproduction of one digital video signal and audio signal selected from among a plurality of reproducible video signals and audio signals stored in the external storage device with reference to the management information output in the on-screen display format.

36. (Cancelled)

37. (Previously Presented) The method of claim 30, wherein further comprising outputting the received digital video signal and audio signal in real time through the display apparatus during the receiving the received video and audio signals with respect to the external storage device.

38-39. (Cancelled)

40. (Previously Presented) The method of claim 30, wherein the providing the generated management information comprising providing information required by the user for use by the user in controlling the external storage device.

41. (Previously Presented) A method of operating a display apparatus connected with an external storage device disposed external to the display apparatus, the method comprising:

downloading a file system from the external storage to display apparatus;
forming a virtual file system to control the external storage device based on the file system from the external storage device;
receiving at least one of a digital video signal and audio signal at the display apparatus;
compressing the received video signal and/or the audio signal, if a user requests storage of the received digital video signal and/or the audio signal;
storing the compressed video signal and/or audio signal in the external storage device in real time; and
restoring the stored and compressed video and audio signal stored in the external storage device, when the user requests reproduction of the digital video signal and/or audio signal using the display apparatus; and
outputting the restored video signal and audio signal using the display apparatus,
wherein the display apparatus is connected to the external storage device through a port, includes a display unit to display the stored digital video signal and a speaker to output the stored audio signal.

42. (Previously Presented) The method of claim 41, further comprising:
outputting management information of the external storage device generated on the basis of the virtual file system, before the compression or the restoration is performed.

43. (Previously Presented) The method of claim 42, wherein the storing or the restoring the compressed video and audio signal comprises the user requiring the storage or the reproduction of the compressed video and audio signal with reference to the output management information.

44. (Previously Presented) The method of claim 42, wherein the forming the virtual file system is performed if an input of the user requests control of the external storage device.

45-53. (Cancelled)

54. (Previously Presented) A reproducing apparatus connected with a storage device disposed external to the reproducing apparatus, the apparatus comprising:
a receiving processor to receive a digital video signal and a television broadcasting signal;

- a port disposed on the reproducing apparatus;
- a display unit to display the digital video signal and the television broadcasting signal;
- a speaker to output the received audio signal; and
- a controller to download a file system for controlling the external system from the external storage device and to form virtual file system and to transmit the received digital video signal from the reproducing processor to the external storage device using the virtual file system, to store the digital video signal received through the receiving processor in the external storage device, and to control the display unit to reproduce the received digital video signal,
 - wherein the controller is connected to the external storage device through the port,
 - wherein the controller further retrieves the stored signal from the external storage device and controls the display unit to output the retrieved signal,
 - wherein the controller further outputs the received signal through the display unit in real time such that the received signal is output with the retrieved signal.

55. (Previously Presented) A reproducing apparatus connected with a storage device disposed external to the reproducing apparatus, the apparatus comprising:

- a receiving processor to receive a digital video signal and a television broadcasting signal;
- a port disposed on the reproducing apparatus;
- a speaker to output the received audio signal;
- a display unit to display the digital video signal and the television broadcasting signal;

and

- a controller to download a file system from the external storage device, to form virtual file system for controlling the external storage based on the downloaded file system, to transmit the received digital video signal from the reproducing processor to the external storage device, to store the digital video signal received through the receiving processor in the external storage device, and to control the display unit to reproduce the received digital video signal,
 - wherein the controller is connected to the storage device through the port,
 - wherein the reproducing apparatus further comprises a housing which houses the receiving processor, the controller, and which has an interface, wherein the external storage device is external to the housing and the received signal is transferred through the interface to the external storage device to be stored.

56. (Previously Presented) The reproducing apparatus of claim 55, wherein the controller further controls the interface in order to transmit the received signal to be stored in the external storage device.

57. (Original) The reproducing apparatus of claim 55, wherein the interface is a Universal Serial Bus (USB) interface.

58. (Previously Presented) The reproducing apparatus of claim 55, wherein:
an external storage device includes another controller and the external storage device,
and
the controller sends instructions through the interface to instruct the another controller to store the received signal in the external storage device.

59-77. (Cancelled)

78. (Previously Presented) At least one medium comprising computer readable code to control at least one processing element in a computer to implement the method of claim 30.

79-82. (Cancelled)

83. (Previously Presented) The display apparatus of claim 2, wherein the external storage device is incorporated in a Personal Digital Assistant (PDA).

84. (Previously Presented) The apparatus of claim 2, wherein the external storage device is incorporated in an MP3 player.

85. (Previously Presented) The display apparatus of claim 2, wherein the external storage device is incorporated in a digital video recorder.

86-90. (Cancelled)

91. (Previously Presented) The method of claim 30, wherein the digital video signal and the audio signal are received from an external audio/video (AV) device.

92. (Previously Presented) The method of claim 30, wherein the received digital video and the audio signal are stored directly in the external storage device.

93. (Previously Presented) The method of claim 30, wherein the external storage device is incorporated in an PDA.

94. (Previously Presented) The method of claim 30, wherein the external storage device is incorporated in an MP3 player.

95. (Previously Presented) The method of claim 30, wherein the external storage device is incorporated in a digital video recorder.

96. (Previously Presented) The method of claim 30, wherein the transmitting of the received digital video signal and the audio signal is performed through a USB port.

97. (Previously Presented) The method of claim 30, further comprising:
reproducing the stored digital video signal and audio signal in response to a user command.

98. (Previously Presented) The method of claim 97, further comprising:
displaying the received digital video signal on the display unit; and
outputting the received digital video signal through the speaker.

99-109. (Cancelled)

110. (Previously Presented) A television system capable of being connected to an external storage device disposed external to the broadcasting signal receiver, the broadcasting signal receiver comprising:

an output unit outputting first information to control the external storage device, at least one of video signals and audio signals;

a controller controlling the output unit to output the first information, reading at least one video signal and an audio signal from the external storage device according to a request based on the first information, and controlling the output unit to output the read at least one of video signal and audio signal;

a display unit to display the received digital video signal; and
a speaker to output the received audio signal,
wherein the first information comprises management information for the external storage device,

the controller downloads a file system from the external storage device, forms virtual file system based on the file system downloaded from the external storage device, generates the management information based on a virtual file system, and outputs the generated management information to the output unit.

111. (Currently Amended) The television system of claim 110, further comprising a Universal Serial Bus controller is controlled by the controller for transmitting and receiving second information for setting a transmitting and receiving environment between the broadcasting signal receiver and the external storage device, and receiving the read at least one of video signal and audio signal from the external storage device.

112. (Previously Presented) The television system of claim 111, further comprising a receiving processor receiving a broadcasting signal,
wherein the controller controls the output unit to output the read at least one of video signal and audio signal from the external storage device together with the received broadcasting signal.

113. (Previously Presented) The television system of claim 112, wherein the controller controls the output unit to output the first information as at least one of an On-Screen Display (OSD) information and an audio signal.

114. (Previously Presented) The television system of claim 113, wherein the first information comprise management information for the external storage device,
the controller generates the management information based on a virtual file system of the external storage device, separate from a file system of the external storage device, based on the file system from the external storage device and outputs the generated management information to the output unit.

115. (Previously Presented) The television system of claim 114, wherein the management information includes time information corresponding to a storage capacity of the external storage device, and list information of the at least one of video signals and audio signals stored on the external storage device.

116. (Previously Presented) The television system of claim 115, wherein the output unit comprises:

the display unit to display at least one of the video signal and the first information; and
the speaker to output at least one of the audio signal and the first information.

117. (Currently Amended) The television system of claim 115, wherein the controller reads the at least one of video signal and the audio signal, which is selected by a user with reference to the management information, from a plurality of reproducible video signals and audio signals stored in the external storage device, through the Universal Serial Bus controller.

118. (Previously Presented) The television system of claim 115, wherein the controller stores the received broadcasting signal in the external storage device with reference to the management information, through the Universal Serial Bus controller.

119. (Previously Presented) The television system of claim 118, further comprising a compression and decompression unit compressing the broadcasting signal received from the receiving processor and transmitting the compressed broadcasting signal to the external storage device through the Universal Serial Bus controller in a compression mode, and restores the at least one of video signal and the audio signal received from an external storage device through the Universal Serial Bus controller and transmitting the restored at least one of video signal and the audio signal to the output unit in a decompression mode.

120. (Previously Presented) The television system of claim 110, further comprising a receiving processor receiving a broadcasting signal,
wherein the controller controls the output unit to output the read at least one of video signal and audio signal from the external storage device together with the received broadcasting signal.

121. (Previously Presented) The television system of claim 110, wherein the controller controls the output unit to output the first information as at least one of an On-Screen Display (OSD) information and an audio signal.

122. (Previously Presented) The television system of claim 110, wherein the first information comprise management information for the external storage device,
the controller generates the management information based on a virtual file system of the external storage device.

123. (Previously Presented) The television system of claim 122, wherein the management information includes time information corresponding to a storage capacity of the external storage device, and list information of the at least one of video signals and audio signals stored on the external storage device.

124. (Previously Presented) The television system of claim 110, wherein the output unit comprises:
the display unit to display at least one of the video signal and the first information; and
the speaker to output at least one of the audio signal and the first information.

125. (Previously Presented) The television system of claim 123, wherein the controller reads the at least one of video signal and the audio signal, which is selected by a user with reference to the management information, from a plurality of reproducible video signals and audio signals stored in the external storage device, through the Universal Serial Bus controller.

126. (Previously Presented) The television system of claim 120, wherein the controller stores the received broadcasting signal in the external storage device with reference to the management information, through the Universal Serial Bus controller.

127. (Previously Presented) The television system of claim 120, further comprising a compression and decompression unit compressing the broadcasting signal received from the receiving processor and transmitting the compressed broadcasting signal to the external storage device through the Universal Serial Bus controller in a compression mode, and restores the at least one of video signal and the audio signal received from an external storage device through the Universal Serial Bus controller and transmitting the restored at least one of video signal and the audio signal to the output unit in a decompression mode.

128. (Previously Presented) The television system of claim 112, wherein the receiving processor receives a video signal and an audio signal from an external audio video (AV) device.

129. (Previously Presented) A method of operating a television system configured to be capable of being connected to an external storage device disposed external to the broadcasting signal receiver, the method comprising:

- outputting first information to control the external storage device;
- reading at least one video signal and an audio signal from the external storage device according to a request based on the first information; and
- outputting the read at least one of video signal and audio signal,

wherein the broadcasting signal receiver includes a display unit to display the received digital video signal and a speaker to output the received audio signal,

- wherein the outputting the first information comprising:
- forming a virtual file system to the external storage device based on a file system downloaded from the external storage device;
- generating management information for the external storage device using the virtual file system; and
- outputting the generated management information as the first information.

130. (Previously Presented) The method of claim 129, further comprising:

- transmitting and receiving second information for setting a transmitting and receiving environment between the television system and the external storage device before the reading at least one video signal and audio signal

131. (Previously Presented) The method of claim 130, further comprising:

- receiving a broadcasting signal;

wherein the outputting the read at least one of video signal and audio signal comprises reproducing the read at least one of video signal and audio signal from the external storage device together with the received broadcasting signal.

132. (Previously Presented) The method of claim 131, wherein the outputting the first information comprises outputting the first information as at least one of an On-Screen Display (OSD) information and an audio signal.

133. (Canceled).

134. (Previously Presented) The method of claim 133, wherein the management information includes time information corresponding to a storage capacity of the external storage device, and list information of at least one of the video signals and audio signals stored on the external storage device.

135. (Previously Presented) The method of claim 134, wherein the reading the at least one video signal and audio signal reads the at least one of video signal and the audio signal, which is selected by a user with reference to the management information, from a plurality of reproducible video signals and audio signals stored in the external storage device using a Universal Serial Bus protocol.

136. (Previously Presented) The method of claim 135, further comprising storing the received broadcasting signal in the external storage device with reference to the management information using the Universal Serial Bus protocol.

137. (Previously Presented) The method of claim 136, further comprising compressing the received broadcasting signal received and transmitting the compressed broadcasting signal to the external storage device using the Universal Serial Bus protocol in a compression mode, and restores the at least one of video signal and the audio signal received from an external storage device using the Universal Serial Bus protocol and outputting the restored at least one of video signal and the audio signal to reproduce the restored at least one of video signal and audio signal in a decompression mode.

138. (Previously Presented) The method of claim 129, further comprising receiving a broadcasting signal;

wherein the outputting the read at least one of video signal and audio signal comprises reproducing the read at least one of video signal and audio signal from the external storage device together with the received broadcasting signal.

139. (Previously Presented) The method of claim 129, wherein the outputting the first information comprises outputting the first information as at least one of an On-Screen Display (OSD) information and an audio signal.

140. (Canceled).

141. (Previously Presented) The method of claim 129, wherein the management information includes time information corresponding to a storage capacity of the external storage device, and list information of the at least one of video signals and audio signals stored on the external storage device.

142. (Previously Presented) The method of claim 141, wherein the reading the at least one of the video signal and the audio signal reads the at least one of video signal and the audio signal, which is selected by a user with reference to the management information, from a plurality of reproducible video signals and audio signals stored in the external storage device using a Universal Serial Bus protocol.

143. (Previously Presented) The method of claim 138, further comprising storing the received broadcasting signal in the external storage device with reference to the management information using the Universal Serial Bus protocol.

144. (Previously Presented) The method of claim 138, further comprising compressing the received broadcasting signal received and transmitting the compressed broadcasting signal to the external storage device using the Universal Serial Bus protocol in a compression mode, and restores the at least one of video signal and the audio signal received from an external storage device using the Universal Serial Bus protocol and outputting the restored at least one of video signal and the audio signal to reproduce the restored at least one of video signal and audio signal in a decompression mode.

145. (Previously Presented) The method of claim 130, further comprising;
receiving a video signal and an audio signal from an external audio video (AV) device;
wherein the outputting the read at least one of video signal and audio signal outputs the
read at least one of video signal and audio signal from the external storage device together with
the video signal and the audio signal received from the external audio/video device.

146. (Previously Presented) The method of claim 129, wherein the outputting the read
at least one of video signal and audio signal comprising:
displaying the read video signal on the display unit; and
outputting the read audio signal through the speaker.

147. (Previously Presented) A display apparatus capable of being connected to an
external storage device; the apparatus comprising:

- a receiving processor that receives the television broadcasting signal;
- a speaker to output audio signal from a received television broadcast signal;
- a display unit to display a video signal from the received television broadcast signal;
- a Universal Serial Bus (USB) port disposed on the display apparatus and is capable of
being connected to the external storage device;
- a Universal Serial Bus (USB) controller to connected to the USB port and receives at
least one of a video signal and audio signal from the external storage device;
- a video signal processor to process a video signal from the received television broadcast
signal or the received video signal from the external storage device to output to the display unit;
- an audio signal processor to process an audio signal included in the received television
broadcasting signal or the received audio signal from the external storage device and to output
to the speaker;
- an information receiver to receive a request from a user;
- an On Screen Display (OSD) information generator to generate an OSD information to
control the external storage device; and

a controller to form a virtual file system for controlling the external device using a downloaded file system from the external storage device, control the OSD information generator for displaying the generated OSD information on the display unit when the user request is input through the information receiver and to control the video signal processor and the audio signal processor unit for outputting at least one of the received video signal and the received audio signal from the external storage device when the external storage device is connected to the USB port and the user request is input through the information receiver.

148. (Previously Presented) The apparatus of claim 147, wherein the user input is inputted by a remote controller.

149. (Previously Presented) The apparatus of claim 147, wherein the user request is inputted by a key.